

Vibration or Jolt when accelerating from the drivetrain

Topic number	LI27.10-P-075869
Version	4
Function group	27.10 - Complete transmission
Date	11/11/24
Validity	Passenger cars with variable transfer case, identifiable in the quick test with control unit N15/7 or N45
Reason for change	Update

Complaint

Only vehicles with a variable transfer case are affected.

Can be identified through control unit N45 or N15/7 in the quick test

When accelerating with light load, vibrations or jolting sensation may come from the drivetrain

Cause

Modified oil quality of the transfer case over time

Remedy

Check initial quick test for faults in the following control units

N45 - All-wheel drive (ARS)

N127 - 'Drivetrain' (PTCU) control unit

Y3/8 - Transmission control for 9-gear transmission (VGS)

N3/10 - Engine electronics for combustion engine

If faults are present, process them as per the guided test in Xentry

If no faults are present:

Check the oil level of the transmission

If the oil level is correct:

Unplug the connector for the transfer cases control unit

Reassess the vehicle on a subsequent test drive

XENTRY Tips

If the complaint no longer occurs:

Perform an oil change of the transfer case according to WIS specifications

After please complete all transfer case Tech-in processes located under VG control unit Adaptations tab

- Resetting the oil service data

- Calibration of N15/7

Perform road test of vehicle to bring transmission to operating temperature (>60C)

Operate vehicle in full circle with steering at full lock

- 5x to the left

- 5x to the right

Reassess the vehicle following the oil change and teach in

If the problem continues to occur with the plug removed or after the oil change has been carried out:

Create a TIPS case with the following data

Initial quick test with fault freeze frame data

EEPROM data from Y3/8 Transmission control unit

EEPROM data from N45 All-wheel drive

Injector performance data

WIS-References		
Document number	Title	Note
AP28.00-P-2801B	Transfer case - oil change	Please note the corresponding model series

Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of vehicles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

Symptoms
Power transmission > Function > Jolting/shuddering during start-off

XENTRY Tips

Power transmission > Function > Vibrates
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Power transmission > Automatic transmission > Function > Shuddering during start-off
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Power transmission > Automatic transmission > Function > Shudders

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note